**10/**542727 **JC12** Rec'd PCT/PTC 20 JUL 2005



## DESCRIPTION

## SEMICONDUCTOR INTEGRATED CIRCUIT

This application is a 371 of PCT/JP03/00403 01/20/2003. Technical Field

The present invention relates to a semiconductor integrated circuit, and an improvement technique for an input circuit and an output circuit included therein.

## Background Art

In a signal transmission line of over 100MHz, in general, there is reflection due to mismatching between output buffer and wiring impedance. Therefore, if the driving force of the output buffer is only enhanced, ringing due to reflection can occur, and malfunctions such as inversion of a logical value can be caused. To cope with this, consideration has been given to the number of installed damping resistors and methods for installation so that the impedance of an output buffer and that of wiring can be matched with each other on board.

Semiconductor integrated circuits are provided with an input buffer circuit for taking external signals into a chip and an output buffer circuit for outputting signals to the outside of the chip. Examples of documents describing buffer circuits include Japanese